



Annual Water Quality Report

Troy drinking water: Safe & Healthy

published June 2001

As part of the 1996 Amendments to the Federal Safe Drinking Water Act, the Consumer Confidence Report (CCR) Rule became effective September 1998. The CCR Rule requires all community water systems in the United States to prepare an annual water quality report and deliver it to all the water system's customers. The CCR Rule was published in the Federal Register on August 19, 1998 and can be found at the US Environmental Protection Agency's (EPA) website: www.epa.gov/epahome/rules.html

Troy water passes the test

Troy drinking water comes from the greatest freshwater supply in the world - the Great Lakes. Troy's water source is Lake Huron, the second largest of the Great Lakes. Huron is 206 miles long, 183 miles wide and 750 ft. at its deepest known measure. It holds approximately 850 cubic miles of water. Troy purchases its water from the Detroit Water and Sewerage Department (DWSD). The department's system filters and treats the lake water at its plant in Port Huron before releasing it into the pipes that deliver Troy's water supply.

Troy maintains 500 miles of water main, over 5300 hydrants, six master meter facilities, and more than 26,000 water meters to serve our 85,000 residents, businesses and public facilities.

Troy consumes approximately five billion gallons of water per year. Our goal is to provide a safe, healthy water supply with quality service to our customers.

If you have any questions about this

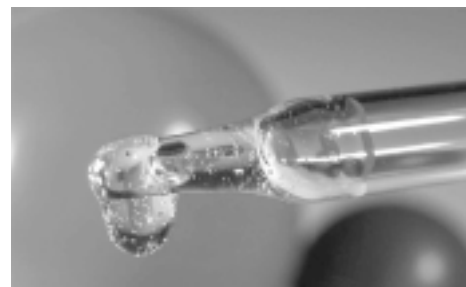
report or Troy water service, please contact the Department of Public Works at 248-524-3370. ■

Recent concerns about arsenic in drinking water

Over the past year, considerable attention has been paid to concerns over the presence of arsenic in drinking water.

Higher levels of arsenic tend to be found in ground water sources, as opposed to surface water sources (lakes and rivers). The City of Troy residents are serviced by a surface water source - Lake Huron. No arsenic has been detected in Troy's drinking water.

What is arsenic? It is a naturally occurring element in the environment and the twelfth most common element in the human body. It is added to the environment by weathering of rocks, burning of fossil fuels, smelting of ores and manufacturing.



Why is arsenic considered a contaminant to drinking water?

Evidence exists that exposure to arsenic can have a variety of negative effects. Long term exposure to high arsenic levels increases the risk of internal and skin cancer.

For most people, the greatest source of exposure to arsenic is in food. It is a normal component of the diet. Studies by the Food & Drug Administration (FDA) have found that fish and seafood are higher in arsenic content than any other foods and account for the largest contribution to total arsenic intake in the typical adult diet.

For more information about the Environmental Protection Agency's (EPA) new standards for arsenic in drinking water, visit their website at: www.epa.gov/safewater/ars/arsenic.html. ■

Glossary of terms

Unregulated contaminants are those for which the Environmental Protection Agency (EPA) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Term	Definition/Explanation
AL (Action Level)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which water system must follow.
MCL (Maximum Contaminant Level)	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG (Maximum Contaminant Level Goal) ..	The level of contaminant in drinking water below which there is no known expected risk to health. MCLGs allow for a margin of safety.
NTU (Nephelometric Turbidity Units)	Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. A guideline limit for turbidity is 1 NTU. For 5 NTU or above, a TT is required.
ppm (Parts per million)	One ppm is equivalent to one milligram per liter. A milligram = 1/1000 gram. (One ppm is the equivalent of one second in 11.5 days)
ppb (Parts per billion)	One ppb is equivalent to one microgram per liter. A microgram = 1/1000 milligram. (One ppb is the equivalent of one second in 32 years)
TT (Treatment Technique)	A required process intended to reduce the level of a contaminant in drinking water.
TTHM (Total Trihalomethanes)	A family of four (4) halogenated organic chemicals. Reporting is based on a running annual average
N/A (Not Applicable)	Not Applicable
≥	More than or equal to

Lake Huron Water Treatment Plant			
Contaminant	Test Date	Units	Health MCLG
Inorganic Chemicals - Annual Monitoring at Plant Finish			
Fluoride	9/2000	ppm	4
Nitrate	9/2000	ppm	10
Disinfection By-products Quarterly Monitoring in Distribution System			
TTHM	3/00-12/00	ppb	N/A
Turbidity - Monitored every Four Hours at Plant Finish			
Highest Single Measurement		Lowest Monthly% of Turbidity Limit of .5	
0.11 NTU		100%	
Turbidity is a measure of the cloudiness of water. We monitor it at the plant finish and at the distribution system. For turbidity levels 5NTU or above, a treatment technique is required.			
Microbial Contaminants - Monthly Monitoring in Distribution System			
Contaminant	MCLG	MCL	
Total Coliform Bacteria	0	Presence of Coliform	
E. coli	0	A routine sample of coliform positive	
Lead and Copper Monitoring at Customers' Tap			
Contaminant	Test Date	Units	Health MCLG
Lead	2000	ppb	0.0
Copper	2000	ppm	1.3
*The 90th percentile value means 90 percent of the homes test at or below this level.			
Unregulated Contaminants			
Contaminant	Test Date	Units	*Future MCLG
Chloroform	3/00-11/00	ppb	0.0
Bromodichloromethane	3/00-11/00	ppb	0.0
Dibromochloromethane	3/00-11/00	ppb	60
Bromoform	3/00-11/00	ppb	0.0



Important Information

Is your sump pump raising your water bill?

One common cause of high water bills is related to back-up water driven sump pumps.

Customers often call us inquiring why their water bill is high. Among other questions, we ask them if they have a water driven sump pump. Many times they comment they've heard their sump pump running, but do not relate it to the increase in their water bill.

These sump pumps can use an extremely large quantity of water. It is in your best interest to monitor it regularly. Here are some tips to minimize this effect:

- Install a battery operated alarm that will notify you when the sump pump is activated.
- Check weekly to see if the pump is running by shutting off the valve. You will hear the water stop if the pump was operating.
- Make sure you have an approved back-up pump with a pressure vacuum breaker to avoid

contamination of the water system. If you have questions regarding your water driven sump pump, contact the Water Division at 248.524.3370. ■



Residents can use Direct Payment to pay their water bill. The City continues sending a billing statement, but payments are automatically deducted from your designated savings or checking account on the due date. Direct Payment service is free to the customer and to the City. No more checks to write, postage, late fees or hassles! For information about this service or an application form, contact the Treasurer's department at 248.524.3333. ■

You can expect a prompt, courteous response from our personnel to requests for information and assistance. We present this report to you as scientific documentation that your drinking water earns high marks for health and quality.

Health concerns for infants, the elderly and others

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk of infection. These people should seek advice about drinking water from their health care providers.

EPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791). ■

2000 Regulated Detected Contaminants Table (reported by the Detroit Water & Sewerage Department)

Goal	Allowed Level MCL	Level Detected	Range LowHigh		Major Sources in Drinking Water
ed Tap Water					
	4	.99	N/A	N/A	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural soils.
	10	0.44	N/A	N/A	
ution System					
	100 (80*)	18.7	16.6	18.7	By-product of drinking water chlorination
Water Tap					
f Samples Meeting NTU (minimum 95%) it because it is a good indicator of the effectiveness of our ent technique (TT) is required.					Major Sources in Drinking Water Soil runoff
ution System					
oliform bacteria ≥ 5% of monthly samples			Highest Number Detected in one month	Major Sources in Drinking Water Naturally present in the enviroment	
le and repeat sample are total e, and one is also fecal or E. coli positive			entire year	Human waste & animal fecal waste	
Goal	Action Level AL	90th Percentile Value*	# of Samples Over AL	Major Sources in Drinking Water	
	15	.006	0	Corrosion of household plumbing system; erosion of natural deposits	
	1.3	.136	0	Corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives	
sted have lead and copper levels below the given 90th percentile value.					
	*Future MCL	Average Detected Level	Range LowHigh		Unregulated contaminants are those for which EPA has not established drinking water standards. These are monitored to assist EPA in determining the occurrence of unregulated contaminants and whether future regulation is warranted. These four contaminants are trihalomethanes. The MCL is set for the total or sum of these individual components. *New MCLG effective December 16, 2001.
	n/a	10.4	4.2	18.0	
	n/a	6.0	3.4	9.9	
	n/a	2.2	1.7	2.7	
	n/a	0.1	0.0	0.2	

Water Quality Information Resources

Troy Department of Public Works
..... 248-524-3370

Detroit Water & Sewerage Department
..... 313-224-4800

US EPA Safe Drinking Water Hotline
..... 800-426-4791

Oakland County Health Division Laboratory
..... 248-424-7098

Environmental Protection Agency online:
..... <http://www.epa.gov/safewater>

The Detroit Board of Water Commissioners holds regular, public meetings at 2:30 p.m. on the 4th Wednesday of each month at the Water Board Building, 735 Randolph Street in Detroit. Interested members of the public are welcome to attend. Call 313-224-4800 for information and to confirm meeting dates and times.

TROY CITY COUNCIL

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Mayor Pro Tem Tom Kaszubski
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Councilman Anthony N. Pallotta
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PUBLIC WORKS DIRECTOR

William Need

SUPERINTENDENT OF WATER & SEWER

Michael S. Karloff

TROY WATER & SEWER INFORMATION

248-524-3370

Is your dip tube a problem?

- Having problems with pressure or flow in your water supply?
- Finding small, white or light green-tinted particles in your aerators or strainers?

If you answer "Yes" to either of these questions, you may have a problem with the dip tube in your water heater.

Dip tubes are long tubes in your water heater that supply cold water to the bottom of the tank. Before, dip tubes were made of copper, but now they are generally made of plastic.

Dip tubes manufactured between 1993 and 1996 by Perfection Corp., of Madison, Ohio, contain a chemical defect that causes them to deteriorate prematurely. This results in sludge and pieces of plastic tubing accumulating inside your hot water tank. These pieces are eventually flushed out of the tank through the hot water outlet where they clog up your aerators or strainers. The missing dip tube also reduces your supply of hot water.

The average time it takes for these defective dip tubes to fail is 3-5 years depending on water heater operating temperature and water chemistry.

If you have a defective dip tube, you have two options:

- 1) Flush the debris from the heater tank, install a new dip tube and flush the strainers and aerators.
- 2) Replace the water heater and clean and flush the strainers and aerators.

Contact your manufacturer for more information. ■

What you can do to keep your water safe to drink

Garden hose connections are the biggest source of contamination for our drinking water supply. Backflow through hose connections takes place an estimated 100,000 times per day in the United States. It ranges from dirty water sitting in a garden hose to chemicals such as degreasers, fertilizers and pesticides being siphoned back into the household drinking water from puddles, laundry tubs, buckets, floor drains and hose end dispensers.

These incidences are easily preventable with the addition of an inexpensive device called a "hose bib vacuum breaker." This attachment is available at plumbing stores and most hardware stores. It is screwed onto any hose connection such as an outside hose bib or laundry tub faucet.

All hose connections are required by plumbing code to be protected against backflow to keep your drinking water safe. It's a small price to pay for good, clean water. Please add vacuum breakers to your shopping list today.

Other common backflow conditions result from toilet fill valves being too short (top of the valve is below the overflow pipe), humidifier valves, water softeners, aquarium fillers, hand-held shower hoses, and lawn sprinkler systems. Have your plumbing system checked for these potentially dangerous cross connections. ■



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Troy MI 48084

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